

REPORT OF THE CITY OF GLASGOW FEVER AND SMALLPOX HOSPITALS, BELVIDERE,

FOR THE

Year ending 31st May, 1902,

BY

JOHN BROWNLEE, M.A., M.D.(Glasg.), D.P.H.(Camb.),
PHYSICIAN-SUPERINTENDENT.

Also,

REPORT, WITH TABLES, BY DR. R. S. THOMSON, VISITING
PHYSICIAN, CITY OF GLASGOW SMALLPOX HOSPITAL.

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and ordered to be printed.*

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1903.

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TO THE CHAIRMAN AND MEMBERS
OF THE HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to submit to you the Report of the City of Glasgow Fever and Smallpox Hospitals, Belvidere, for the year ending May 31st, 1902.

The year has again been one of considerable difficulty. The early part of it was spent in cleaning the Fever Hospital after the last Smallpox cases had been dismissed. It was not until the middle of July that the cleaning was sufficiently advanced to admit of anything like full resumption of work. The delay was chiefly due to the difficulty in getting together a sufficient staff of painters, in part owing to the pressure usually experienced at that season of the year, but rendered greater by the opening of the Exhibition among other causes.

Partly in consequence of this, and partly also because the Fever Hospital was not receiving at its full capacity when Smallpox was epidemic in spring, the total number of cases admitted has been lower than in any year since 1885-86, though the low level was approached in 1893-94.

With regard to the working of the Hospital, the presence of Smallpox makes two changes. Firstly, nurses have to be transferred from the Fever Hospital to the Smallpox Hospital, thus reducing the number of wards available for fever cases, and secondly, the admissions to the Fever Hospital are restricted to patients who have been re-vaccinated or who are under the age of five years. It was fortunately possible to rigidly enforce this restriction owing to the year being one in which the amount of zymotic disease in the City, even with Smallpox included, was exceptionally small. The amount of difficulty which the close relationship of the Fever and Smallpox Hospital occasions can only be known by one who has actually had experience of the working in times of stress. The number of nurses' bedrooms, for instance, is inadequate even

for the ordinary wants of the Hospital with the standard of nurses now considered necessary. The rooms which are used by the staff of the Smallpox Hospital when the staff rises in numbers above twelve are part of those which form the accommodation of the fever nurses at ordinary times. Thirty-six rooms must be transferred at once, for, although it may appear a simple matter to transfer as many of these thirty-six rooms as are required, this can only be done at the expense of depriving the nurses who use those remaining of all facilities for bathing, which is an impossibility in a Fever Hospital. The first result of a rise in the number of Smallpox cases is either the over-working or the overcrowding of the Smallpox staff, and it further follows that, when Smallpox begins to abate, there is such difficulty in taking the staff back again to the Fever Hospital that the end of the epidemic is marked by an excess of nurses, which in no way compensates for the defect at the commencement. To supply nurses to a separate Smallpox Hospital would be a matter of comparative ease. To attain the same result with the present arrangements of the Fever and Smallpox Hospitals is a question which can only be solved by robbing Peter to pay Paul.

During the year, 2,977 patients were treated, and, of these 300 died, giving a mortality of 10.1 per cent., as compared with 11.9 last year.

The average period of residence has been shorter than last year, being only 35.8 days as against 41.8 days, and this is due to the large number of Measles and Smallpox patients treated in the Hospital, both these diseases demanding a much smaller period of residence in Hospital than such diseases as Scarlet Fever and Enteric Fever, in which the period of isolation required, on account of the prolonged infection, is much greater.

The thanks of the Institution are again due to the Doreas Society and also to Miss Telford for the care expended in this work, which, though not one of the prominent features of the Hospital, is one of the most useful. In Belvidere alone 520 persons were either pro-

vided with a new outfit on leaving the Hospital or had one which was defective supplemented. It is of great importance that persons recovering from serious disease should be properly clad against the changes of the weather. It is, however, not a little sad to think that, of the total number of patients admitted to the Hospital, one-sixth should be in the position of requiring assistance if they are to leave the Institution warmly clad. In all, 2,052 articles of clothing were distributed.

The lectures to students were again practically in abeyance, because of the fact that the summer session, *i.e.*, the time when the bulk of the Fever teaching is done, coincided with the period when the Hospital was empty and being cleaned after the Smallpox epidemic.

The lectures to nurses were conducted in three courses, one for each year of training, and were well attended. After examination, forty-eight nurses were granted the Hospital Certificate. The level of the papers was good.

To Mrs. Sinclair I must again express my thanks for her whole-hearted assistance, and for her care in making the necessary arrangements during the time of the Smallpox outbreaks.

To Mr. Muir also I am much indebted for the arrangement and carrying out of many of the details in administration which require a constant attention if the business of the Hospital is to move at all smoothly.

I have the honour to be,

GENTLEMEN,

Your obedient Servant,

JOHN BROWNLEE.

CITY OF GLASGOW
FEVER AND SMALLPOX HOSPITALS,
BELVIDERE, 20th October, 1902.

A SHORT NOTE REGARDING THE STATISTICS OF THE CASES OF SCARLATINA, MEASLES, AND WHOOPING-COUGH ADMITTED TO THE CITY OF GLASGOW FEVER HOSPITAL, BELVIDERE, FROM THE YEAR 1886 TILL THE PRESENT YEAR.

Last year, in my Annual Report, I gave the statistics of all the cases of Typhus and Diphtheria which were treated in the Hospital since its opening in 1870 till May 31st, 1901. This year I had intended to do the same for Scarlatina, Measles, and Whooping-cough, but, on investigation, I came to the conclusion that this would be of little value, as in the early years Measles and Whooping-cough were only rarely removed to Hospital, and even Scarlatina was received in small numbers. Not only was the number small, but the circumstances associated with the removal were, in general, special. For the present purposes then, after consideration, I determined to restrict the statistics to those cases admitted to the Hospital from 1886 onwards, as being likely to afford a much better guide to the age-incidence and comparative mortality at each age than the complete numbers from the commencement of the Hospital.

The following remarks will indicate what interpretation is to be placed on the figures given in the Tables. The relationship between the cases admitted to Hospital and those treated at home are given severally for each disease:—

(1) *Scarlatina*.—This disease has been systematically removed to Hospital since the commencement of the period in question. The percentage treated in Hospital has always been high, the amount ranging from about 60 per cent. in 1886 to over 80 per cent. in the last few years. During the earlier part of the period notification was not in force, but since 1890 the total cases occurring in the city must have been pretty accurately known. The figures therefore may be presumed to give a very accurate representation of the age and sex distribution and mortality.

The total number of cases included in the tables is 22,033.

(2) *Measles*.—Measles is not a notifiable disease in Glasgow, nor has there ever been any systematic attempt to utilise hospital isolation as a means to limit spread of the disease, this being futile, as the most infective period of Measles is that prior to the appearance of the rash, when the diagnosis is usually made. As the admission of Measles cases is thus largely a humanitarian measure, it becomes evident that the tables cannot give a measure of the mortality from Measles with anything like the accuracy that is the case with Scarletina. The patients suffering from the former disease are most largely received during the more severe of the epidemics, when the mortality is high, and, in addition, they are chiefly drawn from the poorer districts of the city, where the conditions of life are not so favourable nor the stamina of the sufferers so equal to the strain of severe illness. The immigration which takes place from the country districts from the age of 18 years and upwards also tends to disturb the age-distribution which would obtain were all the patients natives of the town. In many of the parishes of the Highlands and of Ireland Measles is an extremely rare disease, and, in consequence, this immigration consists largely of persons who are susceptible to Measles. As a considerable number of these persons become domestic servants or join the police force, it follows that, if they take infectious disease, a large proportion are sent to Hospital. It is therefore almost certain that the relative numbers of patients at these ages in the Hospital statistics is much greater than really exists in the City. From 18 years and upwards 95 per cent. of the patients admitted to Hospital are of country extraction, and of these a large proportion are Celts.

The total number of cases in the statistical tables is 12,462.

(3) *Whooping-cough*.—The remarks which have been made regarding Measles apply more or less to Whooping-cough, with the exception that there is no secondary rise

corresponding to that seen at the adult ages in Measles. The selection of cases is made on the same principle as in Measles, but acts slightly differently, inasmuch as Whooping-cough, being a disease of early ages, more of the puny nurslings of the slums find a shelter in the Hospital than with the other disease. The death-rates are exceptionally high, but I see no reason for believing that the age-incidence does not fairly represent that which is normal in some of the lower districts of Glasgow.

The total number of cases in the statistical tables is 4,965.

With these preliminary remarks I will proceed to discuss the statistics of age-incidence and mortality.

To allow of more easy comparison, the totals at each age-period have been reduced to proportions in 10,000, and are given in a diagram (Plate 1) as well as in the accompanying table.

TABLE SHOWING THE RELATIVE PROPORTIONS IN 10,000 CASES OF PERSONS AT EACH AGE-PERIOD FOR SCARLATINA, MEASLES, AND WHOOPING-COUGH.

Age-Period.	Scarlatina.	Measles.	Whooping-cough.
Months.			
0—3	9.5	16	128
3—6	21	78	348
6—9	53	296	534
9—12	49	272	360
Years.			
1—2	318	992	1,246
2—3	588	1,249	1,494
3—4	834	1,387	1,568
4—5	960	1,294	1,399
5—6	976	1,215	1,178
6—7	942	999	845
7—8	863	643	459
8—9	673	321	225
9—10	547	173	110
10—11	503	88	...
11—12	383	48	...
12—13	320	38	(10-15) 68
13—14	259	22	...
14—15	224	19	...
15—16	166	23	...
16—18	271	54	(15-20) 12
18—20	210	124	...
20—25	419	411	(20-25) 8
25—30	215	167	(25-35) 4
30—35	105	42	...
35—40	48	10	...
40—50	27	6	(45-55) 6
50—60	4	2	...
60—70	1	...	...
70—80	0.5	...	...



Number of cases at each monthly period under one year out of 10,000 cases at all ages.
Each square = 25 cases, and the horizontal side of each square periods of one month.

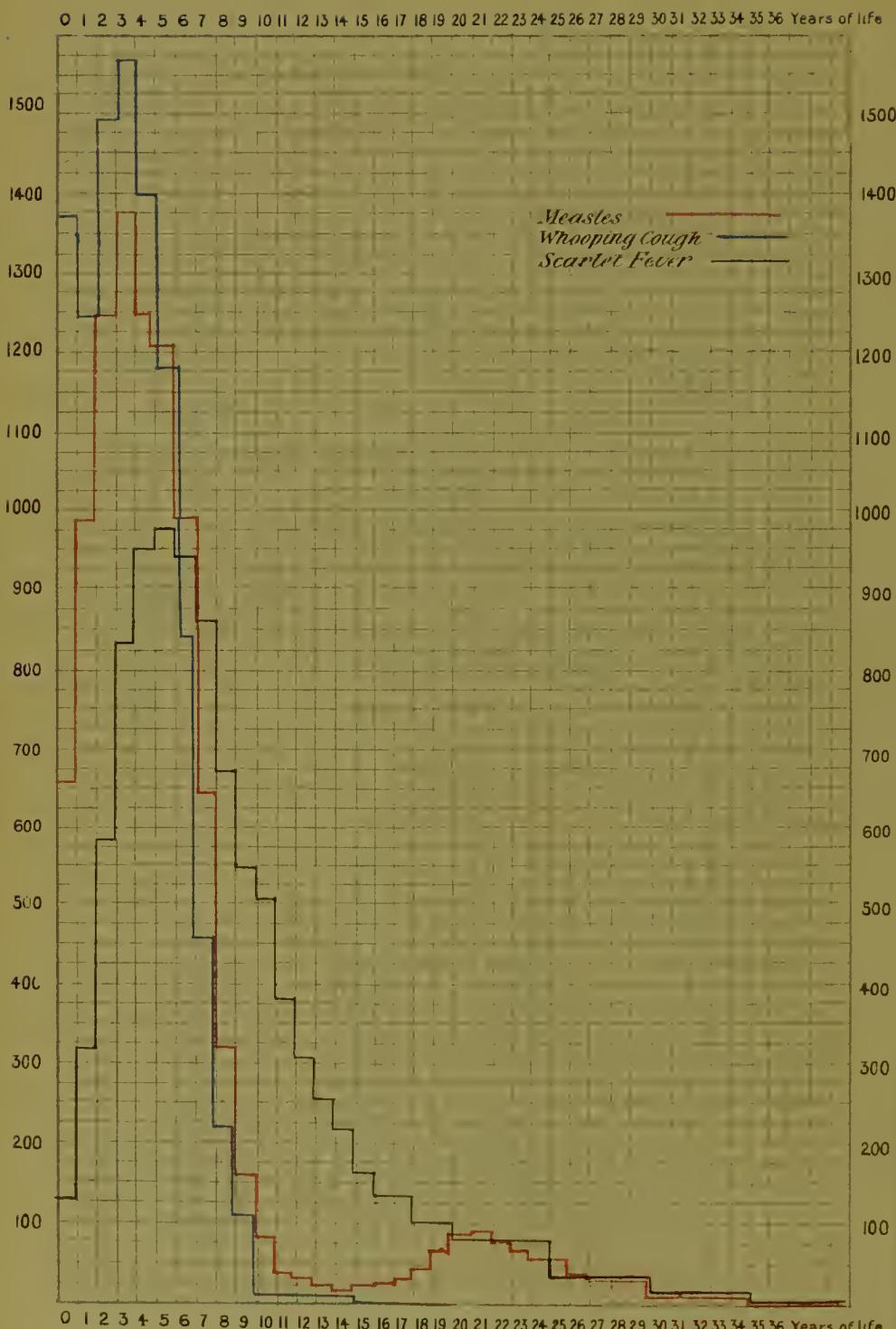


Diagram showing the relative age-incidence of measles, whooping-cough, and scarlatina in 10,000 cases of each.

Each square is equivalent to 25 cases, and the length of the side in the horizontal axis indicates one year of life.

The different behaviour of these three diseases is at once apparent on examining the diagram. Whooping-cough is evidently a disease of very early childhood, the first year of life furnishing almost as many cases as any of the succeeding. Measles, it is seen, attacks at a slightly later age, and has a larger attack rate during the later ages of childhood, the numbers becoming greater than those of Whooping-cough at the age of six years. It reaches a minimum at the age of fourteen years, which would probably represent the end of its ravages were the total population of Glasgow city born; but after this point there begins a large immigration which, as already remarked, is made up chiefly of persons brought up in parts of the country where epidemics of Measles occur only exceptionally. The curve of Scarlet Fever presents a considerable difference to the two preceding. The maximum number* of cases occurs at the age of five years, or two years later than that of Whooping-cough. The descent is much more gradual, and, though the numbers at higher ages is much greater than Measles, yet there is no obvious secondary rise in the curve corresponding to that already noted in that disease. Though the amount of protection of the rural population can hardly be greater against Scarlatina than against Measles, yet the proportion of cases derived from it at the ages from 20 and upwards amounts to less than 50 per cent. of the whole persons attacked at those ages. This is probably to be accounted for on the grounds of the greatly inferior infectivity of Scarlatina in the earlier portions of the attack, when direct contact leads so much in Measles to further the spread of the infection, and also because a much larger portion of the population escape the former disease in their childhood only to be attacked at a later age when possibly, as frequently occurs, their children are suffering from the disease.

* The only table I have had access to which gives the number of cases of Scarlet Fever at each age separately up to 10 years is that of Dr. Niven, of Manchester. In it (see page 17) the maximum is at 4 years, but the next year runs it very close.

Another fact, which appears from consideration of the same diagram, is the great difference in the numbers attacked by each of these diseases under the age of one year. With Scarlatina the number is very small. With Measles it is much larger, but with Whooping-cough, more children are attacked at this period than during the immediately succeeding year of age. It is apparent, from the general principles which underlie the distribution of disease in age periods, that if an irregularity occur in the course of such a curve, then some special factor must exist to account for this. In the case of Measles we have already seen that such an irregularity occurs at the age-period 20-30, and is there due to the immigration of susceptible persons from the country. This led me to extract the numbers at one year under one year of age for each month separately, and, on comparison, it is seen that the three diseases exhibit a very similar course (Plate 2). Under six months the child seems specially insusceptible, but after that date a period of greater susceptibility begins, of which the maximum is from eight to nine months, the number of cases of Measles and Whooping-cough at that age being greater than at any other period under two years. I would have continued this investigation further through the period for the separate months of the next year of age had the ages been fully recorded in months, but in very many instances it is simply given as one year. It is, therefore, not possible to attempt to give such results. Ages under one year are usually very accurate, most mothers knowing the month in which their children were born, so that the monthly grouping of the cases under one year may be taken as trustworthy.

The rise at six months is probably due to the following factors:—After the age of six months and onwards children are fed less fully on mothers' milk. Various additions are made to the child's diet more or less suitably, most often the latter. It is therefore possible that this change of feeding lays the child more open to any infection which may be present at the time, while, with

the increasing age, the power of digestion having become more equal to the assimilation of the changed diet, the child may recover its resistant powers. The period of dentition also begins at this time, and, though the actual cutting of the first teeth is usually in the seventh month, yet the process begins earlier under the gum. The first teeth to be cut are the incisors, and the period which this occupies is usually from the seventh to the tenth month, or that in which this greater susceptibility is observed. It has been the custom to believe that this period is one in which the health of the child is easily influenced by slight causes. The state of the mouth is also one which, on *a priori* grounds, is associated with susceptibility to infectious disease, the gums being soft and inflamed, and affording a suitable soil for pathogenic organisms.

Sex.—With regard to the sex distribution some differences are to be noted. With Scarlatina the females are, in the total, considerably in excess, a fact which is observable in the statistics of other cities as well as in Glasgow. Before the age of three years the males are in excess, but after this time the females outnumber the males at every age of life except that of 18-20 years, where the numbers are small, and, when included with those of the age group of from 15-20 years, do not affect the preponderance of females in the latter. In the tables of the Metropolitan Asylums Board, London, this relationship is seen to be sustained, but the age at which the females become in excess of the males is one year later.

In regard to Measles a like phenomenon is apparent. The change from male to female preponderance during the ages of childhood is also observed, but the age at which this change takes place is two years later, namely, between five and six. There is at no age, however, the marked difference in the numbers of the sexes which is seen in Scarlatina. In Whooping-cough the balance is against the female sex throughout, there being a preponderance of female cases at all ages, though the majority is not so marked during the first few years of life.

Age Mortality.—The only point which remains to be considered is that of the mortality at different ages. In the first six months of life, children, in addition to being much more insusceptible to the attack of infectious diseases, do not develop such severe attacks. The mortality of the first six months is, in the case of Measles and Scarlet Fever, only about a-half that of the second, while in the case of Whooping-cough, though the difference is not so marked, it yet amounts to 25 per cent. less. With the three diseases the mortality reaches its maximum between the ages of one and two years of life, and progressively falls after that date. There are a few exceptions to this statement, but these are of a slight amount. In the first place, in Measles cases there is a distinctly higher mortality at the ages of puberty than immediately before or after. After the age of 20 the mortality is almost *nil*, a fact which is rather surprising when one considers how violently the adult patient, who has been brought up in the country, especially if he be of Celtic extraction, is affected by the disease. With Scarletina, on the other hand, the minimum mortality is reached during the period of puberty, and after this is passed a gradual rise takes place, and the character of the disease in adult life approaches that of the later periods of childhood. It is to be noticed that the female mortality of the collected numbers between 20 and 40 years is not in excess of the male, showing that the numbers dying from Puerperal Scarletina cannot be in all very great.

AGE DISTRIBUTION OF THE 12,362 CASES OF MEASLES
 ADMITTED TO BELVIDERE, 1885-1902.

MALES.				FEMALES.			TOTAL.		
Age-Periods.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Months.									
0—1	2	1	50.0	1	...	...	3	1	33.3
1—2	4	...	...	3	...	...	7	...	...
2—3	7	...	...	3	1	33.3	10	1	10.0
3—4	10	1	10.0	9	1	11.1	19	2	10.5
4—5	23	2	8.7	13	1	7.7	30	3	8.3
5—6	24	1	4.1	18	3	16.6	42	4	9.5
6—7	61	15	24.5	47	9	19.1	108	24	22.2
7—8	60	11	18.3	53	13	24.5	113	24	21.2
8—9	73	19	26.0	72	11	15.3	145	30	20.6
9—10	63	17	26.9	66	10	28.7	129	30	27.8
10—11	66	14	21.2	56	7	12.5	122	21	17.2
11—12	39	11	28.2	47	11	23.4	80	22	25.5
Years.									
1—2	612	161	26.3	615	160	26.0	1,227	321	26.1
2—3	791	128	16.2	754	112	14.8	1,545	240	15.5
3—4	882	90	10.2	830	80	10.6	1,718	179	10.4
4—5	840	42	5.0	760	38	5.0	1,600	80	5.0
5—6	748	31	4.1	755	34	4.5	1,503	65	4.3
6—7	601	17	2.8	634	10	2.5	1,235	33	2.7
7—8	371	4	1.1	425	7	1.6	796	11	1.4
8—9	180	2	1.1	218	4	1.8	398	6	1.5
9—10	105	1	0.9	109	...	...	214	1	0.4
10—11	50	3	5.3	54	1	1.8	110	4	3.6
11—12	26	1	3.8	34	2	5.9	60	3	5.0
12—13	23	...	...	24	...	...	47	...	...
13—14	10	...	...	18	...	...	28	...	...
14—15	9	1	11.1	14	1	7.1	23	2	8.7
15—16	13	1	7.7	10	...	...	29	1	3.4
16—17	15	...	...	18	...	...	33	...	...
17—18	16	1	6.2	18	1	5.5	34	2	5.8
18—19	33	1	3.0	30	2	6.6	63	3	4.7
19—20	49	...	...	42	...	...	91	...	...
20—21	55	...	...	58	...	...	113	...	...
21—22	57	...	...	60	...	...	117	...	...
22—23	53	...	...	58	2	3.4	111	2	1.8
23—24	50	...	...	38	...	...	88	...	...
24—25	35	...	...	44	...	...	79	...	...
25—26	43	...	...	35	...	...	78	...	...
26—27	21	...	...	31	...	...	52	...	...
27—30	32	1	3.1	45	...	...	77	1	1.3
30—35	30	2	6.6	22	1	4.5	52	3	5.7
35—40	5	...	...	7	...	...	12	...	...
40—50	3	...	...	4	...	...	7	...	...
50—60	1	...	...	1	...	...	2	...	...
All Ages,	6,197	579	9.3	6,165	546	8.8	12,362	1,125	9.1

AGE DISTRIBUTION OF THE 22,033 CASES OF SCARLET FEVER
 ADMITTED TO BELVIDERE, 1886-1902.

MALES.				FEMALES.			TOTAL.		
Age-Periods.	Cases.	Deaths.	Mor-tality per cent.	Cases.	Deaths.	Mor-tality per cent.	Cases.	Deaths.	Mor-tality per cent.
Months.									
0—1	3	...	...	5	1	20·0	8	1	12·5
1—2	3	...	...	4	...	...	7	...	...
2—3	3	...	...	3	...	...	6	...	...
3—4	8	1	12·5	3	...	...	11	1	9·0
4—5	10	2	20·0	6	2	33·3	16	4	25·0
5—6	12	...	...	8	1	12·5	20	1	5·0
6—7	18	8	44·4	17	2	11·7	35	10	28·5
7—8	17	5	29·4	17	3	17·6	34	8	23·5
8—9	32	9	28·2	17	2	11·7	49	11	22·4
9—10	26	4	15·3	15	4	26·6	41	8	19·4
10—11	20	4	20·0	16	5	31·2	36	9	25·0
11—12	18	6	33·3	14	5	35·8	32	11	34·3
Years.									
1—2	374	80	21·3	326	90	27·6	700	170	24·3
2—3	695	123	17·7	601	91	15·1	1,296	214	16·5
3—4	873	107	12·2	966	124	12·9	1,839	231	12·6
4—5	1,001	92	9·1	1,116	103	9·2	2,117	195	9·1
5—6	989	80	8·1	1,162	72	6·2	2,151	152	7·0
6—7	1,026	41	3·9	1,051	45	4·3	2,077	86	4·1
7—8	894	30	3·3	1,009	39	3·8	1,903	69	3·6
8—9	675	24	3·5	808	22	2·7	1,483	46	3·1
9—10	532	13	2·4	675	14	2·1	1,207	27	2·2
10—11	506	8	1·5	603	16	2·6	1,109	24	2·1
11—12	370	7	1·8	475	12	2·5	845	19	2·2
12—13	292	4	1·4	415	5	1·2	707	9	1·3
13—14	248	7	2·8	324	3	0·9	572	10	1·7
14—15	230	4	1·7	265	2	0·7	495	6	1·2
15—16	165	2	1·2	202	5	2·4	367	7	1·9
16—18	263	3	1·1	335	8	2·4	598	11	1·8
18—20	237	7	2·9	226	5	2·2	463	12	2·6
20—25	455	15	3·3	468	4	0·8	923	19	2·0
25—30	224	5	2·2	250	13	5·2	474	18	3·8
30—35	99	3	3·0	133	5	3·8	232	8	3·4
35—40	42	1	2·3	64	3	4·7	106	4	3·7
40—50	20	1	5·0	41	2	4·9	61	3	4·9
50—60	4	...	...	6	...	...	10	...	...
60—70	1	...	...	1	...	...	2	...	...
70—80	...	...	...	1	...	...	1	...	...
All Ages,	10,385	696	6·7	11,648	708	6·0	22,033	1,404	6·3

AGE DISTRIBUTION OF 18,422 CASES OF SCARLET FEVER
OCCURRING IN MANCHESTER, 1891-1900.*

Ages.	Attacks.	Deaths.	Percentage Mortality.
— 1	246	53	21·6
1— 2	773	149	19·3
2— 3	1,399	206	14·7
3— 4	1,874	229	12·2
4— 5	2,009	174	8·7
5— 6	1,931	110	5·7
6— 7	1,704	77	4·5
7— 8	1,533	52	3·4
8— 9	1,236	27	2·2
9—10	1,014	22	2·2
10—15	2,921	51	1·7
15—20	921	26	2·8
20—25	417	12	2·9
25—35	327	6	1·8
35—45	85	4	4·7
Over 45	32	1	3·1
All Ages,	18,422	1,199	6·5

* Extracted from the Annual Report of the Medical Officer of Health for Manchester, Dr. Jas. Niven, for the Year 1900.

AGE DISTRIBUTION OF THE 4,965 CASES OF WHOOPING-COUGH
ADMITTED TO BELVIDERE, 1885-1902.

Age-Periods.	MALES.			FEMALES.			TOTAL.		
	Cases.	Deaths.	Mor-tality per cent.	Cases.	Deaths.	Mor-tality per cent.	Cases.	Deaths.	Mor-tality per cent.
Months.									
0—1	5	2	40·0	8	...	...	13	2	15·4
1—2	9	3	33·3	7	3	42·8	16	6	37·5
2—3	15	5	33·3	20	4	20·0	35	9	25·7
3—4	28	9	32·1	31	11	35·4	59	20	33·8
4—5	21	5	23·8	27	7	25·9	48	12	25·0
5—6	31	8	25·7	35	8	22·8	66	16	24·4
6—7	50	16	32·0	37	8	21·6	87	24	27·6
7—8	44	20	45·4	43	12	27·9	87	32	36·8
8—9	39	14	35·7	52	21	40·4	91	35	38·5
9—10	28	11	39·2	38	13	34·1	66	24	36·3
10—11	36	15	41·6	37	13	35·0	73	28	38·5
11—12	17	5	29·4	23	9	39·1	40	14	35·0
Years.									
1—2	304	117	38·5	315	116	36·7	619	233	38·0
2—3	345	84	24·3	397	106	26·6	742	190	25·6
3—4	330	41	12·4	449	78	17·4	779	119	15·3
4—5	299	38	12·6	396	43	10·8	695	81	11·7
5—6	266	22	8·3	319	31	9·7	585	53	9·1
6—7	201	12	5·9	219	16	7·3	420	28	6·6
7—8	103	11	10·6	125	2	1·6	228	13	5·7
8—9	51	3	5·8	61	3	4·9	112	6	5·3
9—10	25	2	8·0	30	...	...	55	2	3·6
10—15	12	2	16·6	22	...	...	34	2	5·8
15—20	1	...	...	5	...	...	6	...	...
20—25	...	...	...	4	...	...	4	...	...
25—35	...	...	...	2	...	...	2	...	...
35—45	...	...	...	...	...	...	...	...	...
45—55	1	...	...	2	...	...	3	...	...
Totals,	2,261	445	19·7	2,704	504	17·9	4,965	949	19·1

MONTHLY VARIATION IN THE AGE-INCIDENCE OF SCARLATINA.

In discussing the statistics of the three diseases just considered, the monthly variation has not been referred to. Measles and Whooping-cough have, as already stated, been admitted in large numbers only when the epidemic was of considerable severity and the space available in the Hospital permitted it. The distribution of these diseases in months, as shown by the Hospital statistics, is therefore useless for any purpose but to give a very rough indication of the prevalence of these diseases. Scarlatina alone has been admitted uniformly and on sufficiently definite principles to admit of its variation in age in different months being investigated with any prospect of valuable result.

The etiology of a disease may have some light thrown upon it by this means, especially when it is one of childhood, and therefore possibly spread by schools. Small definite school infections undoubtedly occur, but these in Glasgow are few and far between. The same is true of milk epidemics: in all they account for a very small proportion of the total cases.

The school ages in Glasgow are essentially 6-12. Although some children are at school at an earlier age than five, yet these are a mere fraction of the total population at these ages, and between five and six years only about 42 per cent. of the children living at that age are at school. It will thus be seen that if Scarlet Fever is a disease spread to any extent by schools, the excess of attack should show itself at the ages of from 6-12. The objection that may be raised to this statement, namely, that the children infected at school will infect their younger brothers and sisters at home, and thus prevent the school infection making itself manifest in the figures, is one which cannot be maintained. It might be used with great force with regard to Measles, which is in its earliest stage excessively infective, but Scarlet Fever is not so, and where solitary cases occur in a family due to the actual definite infection of some member

TABLE SHOWING THE AGE DISTRIBUTION OF SCARLET FEVER PATIENTS IN THREE-MONTHLY PERIODS, IN NUMBERS PER 10,000 FOR EACH PERIOD, WITH A SIMILAR TABLE FOR THE MONTH OF JULY ALONE.

Age Periods.	Aug., Sep., Oct.	Nov., Dec., Jan	Feb., Mar., Apr.	May, Jun., Jul.	July alone.
0— 1	132	131	145	101	146
1— 2	314	324	317	312	335
2— 3	557	612	597	603	524
3— 4	813	799	861	921	962
4— 5	988	916	948	997	1,168
Total, { 0—5, } 5—6	2,804	2,782	2,868	2,934	3,135
6— 7	920	959	877	1,030	1,082
7— 8	902	835	842	855	893
8— 9	689	676	634	674	584
9—10	551	556	531	542	524
10—11	555	498	446	460	403
11—12	412	371	364	364	386
Total, { 6—12, } 12—13	4,029	3,895	3,694	3,925	3,872
13—14	338	329	282	307	309
14—15	280	236	285	230	309
15—16	232	251	219	164	180
16—18	178	170	137	164	137
18—20	236	291	319	260	292
Total, { 12—20, } 20—25	1,476	1,485	1,479	1,305	1,355
25—30	371	461	454	408	292
30—35	184	236	251	205	197
35—	91	109	121	112	146
78	76	118	60	60	60
Total, { 20— , } Total number of Cases on which above figures are based,	724	882	944	785	695
	7,915	6,683	3,786	3,649	1,164

by an outside source, secondary cases are not nearly so common as with the former disease.

The schools resume work after the holidays in Glasgow early in August, and the usual rise of Scarlatina begins in the middle of that month. At this period a large number of children are sent to school for the first time, and these must include many susceptible to the disease. The early autumn months thus coincide with the period in which a rise in the number of cases at school ages should occur if there was much dissemination of Scarlatina through schools. As already stated, definite class infections are very rare in Glasgow, and the influence of schools in spreading the disease, if any, must be looked for in the steady supply of small numbers of cases due to the presence of the poison either in small amount or in an attenuated form. If either of these modes of infection were acting to any extent, it should show itself by a larger relative number of cases occurring at school ages during the early autumn months, especially at the age of six, when a large number of susceptible children are brought under school influence for the first time.

The following Table is based on the records of the Hospital for the last seventeen years, and the total number of cases amounts in all to 22,033. The age distribution for each three-monthly period is given separately, and in the last column a similar Table for July alone is added. In Glasgow the school holidays usually include a part of the end of June, so that, as the incubation period of Scarlatina is rarely more than eight days, July may be regarded as affording an example by itself of the relative numbers at different ages which express the normal age distribution of Scarlatina in the absence of contact in schools.

All the numbers in these columns have been reduced to proportions in 10,000 cases to allow of easy comparison.

The result of an inspection of this Table is to show that though the amount of Scarlatina varies very markedly with the season, yet the age distribution is little, if any at all, influenced, the only really noticeable

difference being the greater number of persons of 12 years and upwards who are attacked by Scarlatina during the winter months than in the warmer season. This is not, however, greater than the variation possible considering the small number of persons attacked at these ages. In particular, it is to be noticed that the difference between the amount of attack rate of the school ages—namely, 6-12—between July and the three succeeding months is just 2 per cent.

As far, then, as these figures, based on the Hospital statistics, are sufficient to build any conclusion upon, they give no support to the view that Scarlatina is largely spread through the influence of the schools in Glasgow.

STATISTICAL TABLES.

TABLE I.

GENERAL STATEMENT.

REMAINING in Hospital, 1st June, 1901,	-	-	-	91
ADMITTED during 1901-1902,	-	-	-	2,977
				<hr/> 3,068
DISMISSED—				
Cured, Relieved, and Died,	-	-	-	2,758
REMAINING in Hospital, 31st May, 1902,	-	-	-	310
Total Number of Deaths,				
				300
Nett Mortality,	-	-	-	10.1 per cent.
DAILY average number of patients in Hospital,				
				319
Average period of stay in Hospital,	-	-	-	35.8 days.

TABLE II.

TABLE SHOWING THE MONTHLY DISTRIBUTION OF THE PRINCIPAL DISEASES DURING THE YEAR, 1901-1902.

				Scarlet Fever.		Diphtheria.		Enteric Fever.		Typhus Fever.		Measles.		Whooping-cough.		Erysipelas.		Total Admissions to Hospital.	
				Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1901.																			
June,	-	-	-	4	...	6	2	2	...	2	1	82	3	5	1	3	...	113	9
July,	-	-	-	42	1	9	2	10	1	2	...	124	6	6	...	8	2	223	14
August,	-	-	-	78	2	11	...	33	9	1	1	83	9	13	3	10	3	254	30
September,	-	-	-	108	4	20	6	48	10	...	...	43	5	7	1	3	...	256	31
October,	-	-	-	133	3	18	5	62	10	...	...	44	3	13	2	5	1	298	29
November,	-	-	-	137	6	16	2	69	15	3	1	48	1	14	3	8	1	310	32
December,	-	-	-	77	4	9	...	35	9	1	...	50	9	12	4	6	1	217	30
1902.																			
January,	-	-	-	79	4	9	3	31	6	2	1	56	3	11	4	8	...	212	25
February,	-	-	-	47	1	6	1	6	...	1	1	15	...	13	4	1	...	100	10
March,	-	-	-	30	1	12	2	5	2	...	...	10	2	2	1	...	...	71	9
April,	-	-	-	45	2	11	3	9	...	2	...	17	1	8	1	...	...	102	9
May,	-	-	-	85	1	15	2	28	5	5	...	45	2	12	2	2	1	217	18
Total,	-	-	-	865	29	142	28	338	67	19	5	617	44	116	26	54	9	2,373	246

Twenty-five patients died within 24 hours of admission.

TABLE III.

ENTERIC FEVER.

Age- Periods.	MALES.		FEMALES.		TOTAL.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0—5	7	...	9	...	16	...	...
5—10	26	3	26	2	52	5	9·0
10—15	23	2	29	2	52	4	7·7
15—20	33	5	16	5	49	10	20·4
20—25	38	9	12	4	50	13	26·0
25—30	31	11	25	4	56	15	26·7
30—35	19	4	10	2	29	6	20·7
35—40	9	3	7	2	16	5	31·3
40—45	10	5	1	...	11	5	45·4
45—50	2	1	2	1	4	2	50·0
50—55	1	1	1	...	2	1	50·0
55—60	...	...	1	1	1	1	100·0
Totals,	199	44	139	23	338	67	19·9

Two patients died within 24 hours of admission.

TABLE IV.

TYPHUS FEVER.

Age- Periods.	MALES.		FEMALES.		TOTAL.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0—5	...	...	...	...	...	...	...
5—10	...	...	...	...	...	...	...
10—15	...	...	...	...	...	...	...
15—20	I	...	3	...	4	...	...
20—25	I	...	4	...	5	...	...
25—30	...	...	2	...	2	...	...
30—35	I	I	...	...	I	I	100.0
35—40	2	I	I*	I	3	2	66.6
40—45	...	...	I	I	I	I	100.0
45—50	...	...	2	...	2	...	...
50—55	I	I	...	...	I	I	100.0
Total,	6	3	13	2	19	5	26.3

* Died (during convalescence) of old standing heart disease.

TABLE V.
DIPHTHERIA.

Age-Periods.	TOTAL CASES.				FAUCIAL CASES.			
	Males.		Females.		Males.		Females.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
0—1	4	3	4	2	1	...	2	1
1—2	8	1	6	2	4	1*	1	1*
2—3	16	4	5	3	5	1	2	1*
3—4	7	2	14	2	4	1	4	...
4—5	6	...	8	1	5	...	3	...
5—10	18	2	22	4	10	1†	13	3††
10—15	5	...	5	1	5	...	4	1†
15—20	1	...	2	1	1	...	2	1†
20—30	1	...	10	...	1	...	10	...
Totals, - - -	66	12	76	16	36	4	41	8
Mortality percent.	18.2		21.1		11.1		19.5	
Age-Periods.	LARYNGEAL CASES.				TRACHEOTOMIES.			
	Males.		Females.		Males.		Females.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
0—1	3	3	2	1	2	2	...	...
1—2	4	...	5	1	1	...	1	1
2—3	11	3	3	2	7	3	...	...
3—4	3	1	10	2	1	1	6	1
4—5	1	...	5	1	1	...	2	...
5—10	8	1	9	1†	3	1	9	1
10—15	...	...	1	...	...	...	...	...
15—20	...	...	...	...	...	...	...	...
20—30	...	...	...	...	...	...	...	...
Totals, - - -	30	8	35	8	15	7	18	3
Mortality percent.	26.6		22.9		46.7		16.6	

* Patients admitted incubating Scarlatina : both diseases present at death.

† Each dagger indicates a case of Haemorrhagic or Malignant Diphtheria.
Ten patients died within 24 hours of admission.

TABLE VI.

SCARLET FEVER.

Age- Periods.	MALES.		FEMALES.		TOTALS.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0—1	6	1	5	2	11	3	27·2
1—2	12	4	6	1	18	5	27·7
2—3	34	1	28	1	62	2	3·2
3—4	33	3	47	1	80	4	5·0
4—5	45	1	50	1	95	2	2·1
5—6	26	1	58	1	84	2	2·4
6—7	50	1	42	1	92	2	2·2
7—8	42	...	46	2	88	2	2·3
8—9	31	1	30	2	61	3	4·9
9—10	21	...	20	...	41	...	...
10—15	55	1	66	...	121	1	0·8
15—20	19	...	20	...	39	...	...
20—25	16	...	22	1	38	1	2·6
25—30	7	...	6	...	13	...	...
30—35	8	...	4	...	12	...	...
35—40	2	...	5	1	7	1	14·3
40—45	1	...	1	1	2	1	50·0
55—60	1	...	...	...	1	...	...
Totals,	409	14	456	15	865	29	3·3

Four patients died within 24 hours of admission.

TABLE VII.
MEASLES.

Age- Periods.	MALES.		FEMALES.		TOTALS.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0—1	20	6	17	2	37	8	21.6
1—2	52	8	35	8	87	16	18.3
2—3	45	3	41	5	86	8	9.3
3—4	47	2	43	4	90	0	6.6
4—5	50	3	37	1	87	4	4.6
5—6	31	...	28	2	59	2	3.4
6—7	26	...	33	...	59	...	...
7—8	8	...	28	...	36	...	...
8—9	6	...	6	...	12	...	...
9—10	8	...	3	...	11	...	...
10—15	3	...	3	...	6	...	...
15—20	6	...	6	...	12	...	...
20—25	16	...	11	...	27	...	...
25—30	2	...	5	...	7	...	...
30—35	1	...	...	...	1	...	...
Totals,	321	22	296	22	617	44	7.1

Five patients died within 24 hours of admission.

TABLE VIII.
WHOOPING-COUGH.

Age- Periods.	MALES.		FEMALES.		TOTAL.		Mortality per cent.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0—1	2	...	7	3	9	3	33.3
1—2	12	8	7	2	19	10	52.6
2—3	10	1	15	3	25	4	16.0
3—4	8	...	10	5	18	5	27.7
4—5	5	1	7	...	12	1	8.3
5—6	9	2	5	...	14	2	14.3
6—7	3	...	3	...	6	...	...
7—8	7	1	1	...	8	1	12.5
8—9	2	...	1	...	3	...	...
9—10	...	...	1	...	1	...	...
10—15	1	...	...	...	1	...	...
Totals,	59	13	57	13	116	26	22.4

Three patients died within 24 hours of admission.

TABLE IX.
ERYSIPelas AND PUERPERAL FEVER.

Age- Periods.	ERYSIPelas.					PUERPERAL FEVER.	
	Males.		Females.				
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
0-- 5	2	1	1	1	...	...	...
5--10	1	...	1	...	...	...	...
10--15	...	...	3	...	...	...	...
15--20	2	...	3	...	1	...	...
20--25	4	...	3	...	8	3	
25--30	2	...	...	...	7	4	
30--35	5	1	2	...	6	4	
35--40	3	1	5	1	1	...	
40--45	1	1	1	...	...	...
45--50	2	1	1	...	...	...
50--55	...	...	...	...	...	...
55--60	2	...	1	...	...	...
60--65	2	...	2	1	...	...
65--70	...	...	4	1	...	...
70--75	...	...	1	...	...	...
Totals, -	26	5	28	4	23	11	

One patient suffering from Puerperal Fever died within 24 hours of admission.

TABLE X.
UNCLASSIFIED DISEASES.
(a) INFECTIOUS.

	MALES.		FEMALES.	
	Cases.	Deaths.	Cases.	Deaths.
Plague, - - - - -	3	1	5	1
Anthrax, - - - - -	...	...	1	...
Influenza, - - - - -	2	...	5	...
Febricula, - - - - -	11	...	...	...
Tuberculosis—				
(a) Meningitis, - - - - -	2	2	1	1
(b) Peritonitis, - - - - -	1	1	1	...
(c) Phthisis, - - - - -	...	...	2	1
Malaria, - - - - -	1	...	...	...
Syphilis, - - - - -	...	...	4	2
Gonorrhea, - - - - -	1	...	...	...
German Measles, - - - - -	4	...	6	...
Varicella, - - - - -	1	...	...	...
Parotitis, - - - - -	...	...	1	...
Totals, - - - - -	26	4	26	5

TABLE X.—*Continued.*

UNCLASSIFIED DISEASES.

(b) NON-INFECTIOUS.

		MALES.		FEMALES.	
		Cases.	Deaths.	Cases.	Deaths.
Pneumonia,	- - - - -	19	3	5	3
Broncho-pneumonia,	- - - - -	1	1	4	2
Septic conditions,	- - - - -	0	2	4	1
Tonsillitis,	- - - - -	4	...	5	...
Nephritis,	- - - - -	1	1	1	...
Cancer,	- - - - -	2	2	...	...
Enteritis,	- - - - -	...	...	1	...
Erythema,	- - - - -	4	...	1	...
Gastric Catarrh,	- - - - -	1	...	1	...
Convulsions,	- - - - -	1	1	...	...
Pleurisy,	- - - - -	...	...	1	...
Anæmia,	- - - - -	...	...	1	...
Syncope,	- - - - -	1	1	...	...
Laryngismus Stridulus,	- - - - -	1	...	...	...
Bubonic Conditions resembling Plague,	- - - - -	3	...	2	...
Nil,	- - - - -	12	...	15	...
Born in Hospital,	- - - - -	1	1	3	...
Nursing Mothers,	- - - - -	...	...	21	...
Members of Staff with Non-Infectious Diseases,	- - - - -	2	...	20	...
Total,	- - - - -	62	12	85	6

TABLE XI.

NUMBER OF PATIENTS ADMITTED SUFFERING FROM
TWO DISEASES.

Measles and Scarlet Fever,	-	-	-	-	-	4
Measles and Chickenpox,	-	-	-	-	-	2
Measles and Whooping-cough,	-	-	-	-	-	8
Scarlatina and Whooping-cough,	-	-	-	-	-	3
Scarlatina and Chickenpox,	-	-	-	-	-	1

TABLE XII.

NUMBER OF PATIENTS ADMITTED INCUBATING A DISEASE
DIFFERENT FROM THAT FOR WHICH THEY WERE ADMITTED.

Disease for which Admitted.	DISEASE WHICH DEVELOPED.				
	Scarlatina.	Measles.	Whooping- cough.	Chickenpox.	Mumps.
Scarlatina,	...	6	2	5	1
Measles,	...	...	...	4	...
Diphtheria,	3	...	...	...	...

TABLE XIII.

NUMBER OF PATIENTS INFECTED WITH DISEASES OTHER THAN THAT PRESENT ON ADMISSION TO HOSPITAL.

Disease for which admitted.	DISEASE ACQUIRED.					
	Scarlatina	Measles.	Chicken-pox.	Mumps.	Röthlen.	Whooping-cough.
Scarlatina, - -	...	...	20	...	...	...
Measles, - -	2	...	1	...	1	2
Whooping-cough,	1	6	...	2	...	...
Diphtheria, - -	6	...	...	...	...	...
Chickenpox, - -	...	2	...	...	...	...

TABLE XIV.

INFECTIOUS DISEASES AMONG THE STAFF.

	Scarlatina.	Diphtheria.	Typhoid Fever.	Röthlen.	Erysipelas.
Doctors, - -	2	...	...	...	...
Nurses, - -	5	4	2	1	...
Clerks, - -	1	...	...	...	...
Male Servants,	...	...	...	...	1
Cleaners, - -	1	...	...	...	...

TABLE XV.
COMPLICATIONS IN ENTERIC FEVER.

AGE-PERIODS, - -	0-5.				5-10.				10-15.				15-20.				20-25.				25-30.				30-40.				40-50.				50-60.			
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.	
	C.	D.	C.	D.	C.	D.																														
Uncomplicated, -	7	...	9	...	23	2	19	...	21	I	24	2	29	4	11	3	31	7	8	2	23	6	20	3	23	6	14	3	6	4	I	I	I	...
Relapse, -	I	...	I	...	I	I	I	...	I	4	...	2	...	I	...	2	I
Perforation, -	I	I	I*	I	...	...	...	...	...	...	I	I	...	...	I	I	I	I	...	...	...	...	...	...	...	...	...	...	...	...	...
Hæmorrhage, -	I	...	I	...	I	...	2	I	2	2	...	5	4	2	I	2	...	I	...	5	2	I	I	I	...
Pneumonia, -	2	I	...	...	...	I	...	I	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thrombosis, -	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis, -	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	
Pleurisy, -	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	
Empyema, -	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peritonitis, -	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...
Albuminuria, -	I	...	I†	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...
Muscular Abscesses, -	I	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...
Necrosis of Jaw, -	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bed Sores, -	I	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis, -	I	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...
Typhoid Spine, -	I	...	...	...	...	...	...	...	...	...	...
Pelvic Abscess, -	I	...	...	...	...	...	...	...	...	...	...
Abortion, -	I	...	...	...	...	...	...	...	...	...	...
	7	...	9	...	26	3	26	2	23	2	29	2	33	5	16	5	38	9	12	4	31	11	25	4	28	7	17	4	12	6	3	I	I	I	2	I

* Lobar Pneumonia in addition.

† Otitis Media in addition.

NOTE.—Tympanitis, Hypostatic Pneumonia, and Febrile Albuminuria have not been extracted separately.

TABLE XVI.
COMPLICATIONS IN DIPHTHERIA.

YEARS OF AGE,	0-1.				1-2.				2-3.				3-4.				4-5.				5-10.				10-15.				15-20.				21-30.			
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.					
	C.	D.	C.	D.																																
Uncomplicated,	1	1	2	1	6	1	3	1	10	2	2	1	4	...	11	2	5	...	4	...	13	2	17	4	5	...	4	1	1	1	1	9	...			
Broncho - Pneu- monia,	3	2	1	1	1	1	4	1	3	2	1	1	1	...	1	1			
Bronchitis,	...	...	1	...	...	...	...	3	1	...	...	...	...	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Broncho - Pneu- monia and Meningitis,	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paralysis,	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2	...	2	...	4	...	...	...	1	...	1	1*	...	1	...
Endocarditis,	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syncopal Attacks,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Cardiac Failure,	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
Otitis Media,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Otitis Media and Broncho-pneu- monia,	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals,	4	3	4	2	8	1	6	2	16	4	5	3	7	2	14	2	6	...	8	1	18	2	22	4	5	...	5	1	1	...	2	1	1	10	...	

* Malignant Diphtheria.

NOTE.—Albuminuria has not been extracted separately.

TABLE XVII.
COMPLICATIONS IN SCARLATINA.

¹ Admitted with Nephritis.

2 Adenitis and Otorrhea

³ Otorrhea

⁴ Death from Meningitis

5 Onuchic

6 Adenitis

8. $\Omega_1 = 1$

9 October and Sappho

10 Blawiey

Optics Media

12 Adenitis

TABLE XVIII.
COMPLICATIONS IN MEASLES.

	0-1.				1-2.				2-3.				3-4.				4-5.				5-10.				10-20.				20-30.				30-40.				
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		
	C.	D.	C.	D.																																	
Uncomplicated,	15	I	II	...	34	...	24	...	33	...	29	...	38	...	32	...	42	...	32	...	75	...	87	...	9	...	9	...	17	...	16	...	I	...	...	...
Broncho-pneumonia,	4	4	5	2	7	4	7	6	6	I	5	4	3	I	5	3	2	2	4	I	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis,	2	...	I	...	I	...	I	...	...	...	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis,	...	I	I	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhea,	2	...	...	...	I	...	...	I	...	I	...	...	I	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...
Laryngitis,	I	...	...	...	...	...	I	...	I	...	I	I*	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
Marasmus,	2	I	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	...
Local Abscesses,	I	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia,	2†	...	I	...	...	...	I	...	3	I	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...
Noma and Cancreum Oris,	2
Convulsions,	I	I	...	...	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	...
Adenitis,	I	...	I	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis,	3	3	I	I	2	2	...	...	I	...	...	...	I	...	I	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough,	I	...	I	I	...	...	I	...	I	...	2	...	...	...	...	...	...	I	...	3	...	...	...	...	...	...	...	...	...	...	...
Totals,	20	6	17	2	52	8	35	8	45	3	41	5	47	2	43	4	50	3	37	I	79	...	98	2	9	...	9	...	18	...	16	...	I	...	...

* Broncho-pneumonia.

† Broncho-pneumonia.

TABLE XV.
COMPLICATIONS IN ENTERIC FEVER.

AGE-PERIODS.	0-5.				5-10.				10-15.				15-20.				20-25.				25-30.				30-40.				40-50.								
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.						
	C.	D.	C.	D.																																	
Uncomplicated,	8	...	4	...	21	I	13	...	10	I	11	I	15	2	7	2	16	3	13	5	14	2	7	2	15	3	5	...	6	I	I	...	...	4	...	
Relapse,	I	...	2*	...	5	I	...	...	2	...	...	...	2	...	2	...	1	...	2	...	3	...	I	...	...	...	I	...	...	I	...		
Perforation,	I	I	I	I	...	...	...	...	3	3	I	I	...	...	...	...	...	...	...	I	I	...	...	I	I	...	...	...	...	...	...
Hæmorrhage,	I	I	...	...	I	I	...	...	I	I	...	...	3	2	2	...	2	2	I	...	I	I	...	...	I	...	I	...	
Pneumonia,	I	...	...	...	...	I	...	I	...	...	...	...	2	I	I†	...	...	...	...	2§	2	I	...	I	...	...	...	...	...	...	...	...
Bronchitis,	I	I	...	...	I	I	...	I	...	...	...	...	I	I	I	I	2	2	...	...	...	...	...	...	...	...	...	I	I	...	...
Pleurisy,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pericarditis,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Otorrhœa,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thrombosis,	2†	...	I	...	I	...	...	...	...	...	...	...
Nephritis,	I	...	...	...	...	...	...	...	...	...	...	...	I	...	...	I	I	...	...	...	...	...	...	...	...
Cystitis,	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neuritis,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Amentia,	I	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth,	I	I	...	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...
Erysipelas,	I
Tuberculosis,	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...
Abscesses,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...
	10	...	4	...	27	4	16	I	17	4	13	I	25	6	8	3	25	6	20	7	24	7	16	5	22	5	12	3	7	2	I	...	I	I	6	...	

* Otorrhœa.

† With Nephritis and Bed Sores in addition.

‡ One with Neuritis.

§ One ending in Gangrene of the Lung.

* Empyema. † One with protracted Sore Throat. ‡ One with Pyelitis, along with Adenitis. § Beginning during second attack. || Present on admission. ¶ One of these cases had Nephritis as the complication of the first attack, and Scarlatinal Rheumatism as that of the second.

Separate figures refer in all cases to individual cases, except in one of the cases of Laryngitis, where both complications were present in the same person.

TABLE XVIII.
COMPLICATIONS IN MEASLES.

	0-1.				1-2.				2-3.				3-4.				4-5.				5-10.				10-20.				20-30.							
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.					
	C.	D.	C.	D.	C.	D.																														
Uncomplicated,	7	...	3	...	7	...	4	...	4	...	7	...	8	...	14	...	6	...	5	...	22	...	16	4	...	2	...	5	...	I	...	I	...
Broncho - pneumonia,	I	I	2	I	I	...	2	I	I	I	...	2	...	2	...	I	...	2	I	
Bronchitis,	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngitis,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomatitis,	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cancrum Oris,	...	...	...	...	...	...	...	...	...	...	I*	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis,	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I*	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	2	I	...	...	...	...	...	...	...	...	...	...	...	...
Marasmus,	...	...	...	I	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eczema,	...	...	I	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough,	I	I	...	...	I	...	3	I	...	I	I	...	...	...	...	...	...	...	...	I	...	...	...	...	...	I	...	...	...	...	...	...	...	...
Scarlet Fever,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis,	...	...	...	...	...	...	...	...	...	...	...	I	I	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals,	9	I	6	2	II	I	8	I	7	2	IO	2	IO	...	16	...	8	...	9	...	27	I	19	...	3	...	6	...	2	...	5	...	I	...	I	...

* Broncho-pneumonia in addition.

TABLE XIX.

COMPLICATIONS IN WHOOPING-COUGH.

	0-1.				1-2.				2-3.				3-4.				4-5.				5-10.				10-20.			
	Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.		Males.		Females.	
	C.	D.	C.	D.																								
Uncomplicated, -	6	...	4	...	2	...	3	I	4	...	6	...	8	...	7	...	10	...	11	...	16	...	19	...	I	...	I	...
Broncho-pneumonia, -	I	I	3	2	2	I	5	3	I	I	4	2	3	2	5	2	2	...	3	I	2	...	8	I	
Bronchitis, -	3	...	2	I	5	...	5	3	...	2	...	2	...	6	...	5	
Convulsions, -	2	2	...	...	4	4	2	I	I	I	3	3	...	...	...	...	...	...	...	I	I	...	...	...	...	...
Broncho-pneumonia } and Convulsions, -	3	3	I	...	2	2	4	3	...	...	2	2	I	I	2	2	...	...	...	...	...	...	...	...	...	...
Enteritis, -	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stomatitis, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...
Noma and Cancrum } Oris, -	...	...	...	...	I*	I	...	...	...	...	I	...	...	...	I	...	...	...	...	...	...	I*	I	...	...	
Local Abscesses, -	I	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...
Arthritis, -	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marasmus, -	I	I	I	I	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hemiplegia, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	
Eczema, -	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	I	...	...	...	...
Purpura, -	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever, -	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...
Diphtheria, -	...	...	...	...	...	...	I	I	...	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...
Measles, -	...	...	...	...	...	...	...	...	I	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Tuberculosis, -	...	...	...	...	...	2	2	...	...	...	I	...	...	...	I	...	I	I	2	2	I	...	2	I	...	
Totals, -	14	7	12	3	19	11	17	9	12	2	23	7	13	3	19	4	17	I	19	3	29	I	36	3	I	...		

* With Broncho-pneumonia.

COMPLICATIONS IN WHOOPING-COUGH.

	0-1.												1-2.												2-3.												3-4.												4-5.												5-10.												10-20.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.						Males.						Females.	

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APPENDIX A.

REPORT BY THE VISITING PHYSICIAN
 OF THE
 CITY OF GLASGOW SMALLPOX HOSPITAL
 FOR THE

Year ending 31st May, 1902.

On the 1st of June, 1901, there were in the Hospital 15 cases of Smallpox, 4 cases of Chickenpox, and 1 case of another disease. In addition, 604 cases were admitted during the year. This total consisted of—

	Cases.
Smallpox, - - - - -	488
Chickenpox, - - - - -	66
Chickenpox and Whooping-cough, - - - - -	8
Chickenpox and Gastro-enteritis, - - - - -	1
Measles, - - - - -	2
Pneumonia, - - - - -	2
Syphilis, - - - - -	2
Nephritis, - - - - -	1
Cystic Kidney, - - - - -	1
Marasmus, - - - - -	1
Pleurodynia, - - - - -	1
Pemphigus, - - - - -	1
Eczema, - - - - -	1
Dermatitis Herpetiformis, - - - - -	1
Nursing Mothers—no illness, - - - - -	10
Babies with Mothers—no illness, - - - - -	16
Nil, - - - - -	2

Among the total admitted there were 54 deaths, giving a case-mortality of 8·96 per cent. of all cases treated during the year.

Smallpox.—The epidemic, whose commencement in April, 1900, and progress throughout the following year, have been noted in the two last Reports, died down in the spring of 1901, and came to an end for the time being in June. The present Report includes the last 12 cases admitted during that month. Between July and October no case of Smallpox was admitted to Hospital, but in the beginning of November there occurred a recrudescence of the epidemic, which continued without intermission throughout the remainder of the Hospital year.

In all, 488 cases of Smallpox were admitted to Hospital. Of these, 37 were unvaccinated, of whom 25 recovered and 12 died, giving a mortality of 32·4 per cent. More than half of these unvaccinated cases—viz., 22 out of 37 cases—were children under five years of age, and this class furnished more than half the total number of deaths, viz., 7 deaths out of 12. Of the 37 unvaccinated cases, 12 were confluent and 2 were “haemorrhagic,” that is to say, 38 per cent. of the cases were of a very severe type.

In 17 cases admitted during the year vaccination was “doubtful,” that is to say, vaccination was alleged to have been performed in infancy, but of this there was no evidence on admission. Of these, 5 were confluent and 1 was “haemorrhagic,” that is, over 35 per cent. were of a very severe nature, while 6 died, giving a case-mortality in this class of 35·3 per cent.

Among the 434 vaccinated cases, 26 deaths occurred, a mortality of 5·99 per cent., or about one-fifth of the mortality which prevailed among the unvaccinated and doubtful cases.

These deaths all occurred among persons over 20 years of age, and for the most part among those between 35 and 55 years, that is, in cases where the protective influence of primary vaccination had through lapse of time disappeared.

Of all the vaccinated cases, 30 were confluent and 10 were haemorrhagic, that is, 9·2 per cent. were of a very severe

type, as compared with 38 per cent., and 35 per cent. among the unvaccinated and doubtful cases respectively.

Chickenpox.—There were admitted during the year 66 cases of uncomplicated Chickenpox, all of whom were dismissed well. There were also 8 cases of Chickenpox complicated with Whooping-cough, of whom 5 died, and one case of Chickenpox with Gastro-enteritis, which also died. Of these 74 cases of Chickenpox (including the 9 complicated cases), 28 were admitted from the City Poor-house, 4 from the Govan Combination Parish, 1 each from the Night Asylum and Family Home, 11 from the Western, Royal, and Victoria Infirmarys, and 30 from their homes in different parts of the city.

Errors of Diagnosis.—In addition, there were sent into Hospital as cases of Smallpox 15 patients who were not found to have that disease. Of these, 2 were cases of Measles, 2 of Pneumonia, 2 of Syphilis, 1 of Nephritis, 1 of Cystic Kidney, 1 of Marasmus, 1 of Pleurodynia, 1 of Pemphigus, 1 of Eczema, 1 of Dermatitis Herpetiformis, while 2 cases showed no discoverable disease.

In four of the cases death occurred, viz., in one case of Pneumonia, and in the cases of Cystic Kidney, Marasmus, and Dermatitis Herpetiformis; the other 11 patients were dismissed well.

In addition, 10 mothers, not affected with Smallpox, were admitted to nurse their infants, who suffered from that disease. These 10 were dismissed well.

Finally, 16 infants, not suffering from Smallpox, were admitted along with their mothers, who had the disease. These also were dismissed well.

Demonstrations to Practitioners and Students.—During the year demonstrations of the cases were frequently given by the Visiting Physician, and were extensively taken advantage of by practitioners and students.

R. S. THOMSON, M.D., D.Sc.(Glasg.).
Visiting Physician.

TABLE I.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVILLO,
DERE.—CASES TREATED FROM 1ST JUNE, 1901, TO 31ST
MAY, 1902, CLASSIFIED AS TO VACCINATION.

AGE PERIODS.	VACCINATED.		VACCINATION DOUBTFUL. (No Scar visible.)		UNVACCINATED		TOTAL.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
0 to 5, ...	1	...	2	...	22	7	25	7
5,, 10, ...	3	...	4	1	4	2	11	3
10,, 15, ...	10	...	...	...	3	1	13	1
15,, 20, ...	14	...	1	...	...	...	15	...
20,, 25, ...	59	3	1	1	1	...	61	4
25,, 35, ...	157	4	5	3	5	1	107	8
35,, 45, ...	137	10	2	...	2	1	141	11
45,, 55, ...	38	7	2	1	...	...	40	8
55,, 65, ...	11	...	...	...	...	...	11	...
65 and over,	4	2	...	...	...	...	4	2
	434	26	17	6	37	12	488	44

TABLE II.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVIDERE.—
CLASSIFIED AS TO AGE, CHARACTER, AND

AGE PERIOD	AREA OF SCARS.	ONE SCAR.				TWO SCARS.			
		FOVEATED.		UNFOVEATED.		FOVEATED.		UNFOVEATED.	
		Sparse.	Abundant.	Confluent.	Hæmorrhagic.	Sparse.	Abundant.	Confluent.	Hæmorrhagic.
0-5	- '25 sq. in.	Cases,	...	...	...	...	I *	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
	'25 - '5	Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
5-10	- '25 sq. in.	Cases,	...	...	...	...	I	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
	'25 - '5	Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
10-15	- '25 sq. in.	Cases,	I	...	...	I	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	2	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
	'25 - '5	Deaths,	...	...	...	...	...	...	...
		Cases,	...	...	...	...	...	...	...
		Deaths,	...	...	...	...	...	...	...
		Cases,	I	...	...	I	...	...	...
		Deaths,	...	...	...	...	...	...	...
15-20	- '25 sq. in.	Cases,	4	...	...	I	I	...	I
		Deaths,	...	...	...	...	...	...	...

* Area of vaccination scar, 11 sq. in.; margins of scar ill defined. Child 2 years old.

ACCINATED CASES TREATED FROM 1ST JUNE, 1901, TO 31ST MAY, 1902;
DIMENSIONS OF SCAR; WITH RESULTS.

TABLE II

continued.

THREE SCARS.				FOUR SCARS AND OVER.				TOTAL.	
FOVEATED.		UNFOVEATED.		FOVEATED.		UNFOVEATED.		Cases.	Deaths.
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	1	1	1	1	1	1	1	1
4	4	1	1	1	1	1	1	1	1
5	5	2	2	2	2	2	2	2	2
6	6	1	1	1	1	1	1	1	1
7	7	1	1	1	1	1	1	1	1
8	8	1	1	1	1	1	1	1	1
9	9	1	1	1	1	1	1	1	1
10	10	1	1	1	1	1	1	1	1
11	11	1	1	1	1	1	1	1	1
12	12	1	1	1	1	1	1	1	1
13	13	1	1	1	1	1	1	1	1
14	14	1	1	1	1	1	1	1	1
15	15	1	1	1	1	1	1	1	1
16	16	1	1	1	1	1	1	1	1
17	17	1	1	1	1	1	1	1	1
18	18	1	1	1	1	1	1	1	1
19	19	1	1	1	1	1	1	1	1
20	20	1	1	1	1	1	1	1	1
21	21	1	1	1	1	1	1	1	1
22	22	1	1	1	1	1	1	1	1
23	23	1	1	1	1	1	1	1	1
24	24	1	1	1	1	1	1	1	1
25	25	1	1	1	1	1	1	1	1
26	26	1	1	1	1	1	1	1	1
27	27	1	1	1	1	1	1	1	1
28	28	1	1	1	1	1	1	1	1
29	29	1	1	1	1	1	1	1	1
30	30	1	1	1	1	1	1	1	1
31	31	1	1	1	1	1	1	1	1
32	32	1	1	1	1	1	1	1	1
33	33	1	1	1	1	1	1	1	1
34	34	1	1	1	1	1	1	1	1
35	35	1	1	1	1	1	1	1	1
36	36	1	1	1	1	1	1	1	1
37	37	1	1	1	1	1	1	1	1
38	38	1	1	1	1	1	1	1	1
39	39	1	1	1	1	1	1	1	1
40	40	1	1	1	1	1	1	1	1
41	41	1	1	1	1	1	1	1	1
42	42	1	1	1	1	1	1	1	1
43	43	1	1	1	1	1	1	1	1
44	44	1	1	1	1	1	1	1	1
45	45	1	1	1	1	1	1	1	1
46	46	1	1	1	1	1	1	1	1
47	47	1	1	1	1	1	1	1	1
48	48	1	1	1	1	1	1	1	1
49	49	1	1	1	1	1	1	1	1
50	50	1	1	1	1	1	1	1	1
51	51	1	1	1	1	1	1	1	1
52	52	1	1	1	1	1	1	1	1
53	53	1	1	1	1	1	1	1	1
54	54	1	1	1	1	1	1	1	1
55	55	1	1	1	1	1	1	1	1
56	56	1	1	1	1	1	1	1	1
57	57	1	1	1	1	1	1	1	1
58	58	1	1	1	1	1	1	1	1
59	59	1	1	1	1	1	1	1	1
60	60	1	1	1	1	1	1	1	1
61	61	1	1	1	1	1	1	1	1
62	62	1	1	1	1	1	1	1	1
63	63	1	1	1	1	1	1	1	1
64	64	1	1	1	1	1	1	1	1
65	65	1	1	1	1	1	1	1	1
66	66	1	1	1	1	1	1	1	1
67	67	1	1	1	1	1	1	1	1
68	68	1	1	1	1	1	1	1	1
69	69	1	1	1	1	1	1	1	1
70	70	1	1	1	1	1	1	1	1
71	71	1	1	1	1	1	1	1	1
72	72	1	1	1	1	1	1	1	1
73	73	1	1	1	1	1	1	1	1
74	74	1	1	1	1	1	1	1	1
75	75	1	1	1	1	1	1	1	1
76	76	1	1	1	1	1	1	1	1
77	77	1	1	1	1	1	1	1	1
78	78	1	1	1	1	1	1	1	1
79	79	1	1	1	1	1	1	1	1
80	80	1	1	1	1	1	1	1	1
81	81	1	1	1	1	1	1	1	1
82	82	1	1	1	1	1	1	1	1
83	83	1	1	1	1	1	1	1	1
84	84	1	1	1	1	1	1	1	1
85	85	1	1	1	1	1	1	1	1
86	86	1	1	1	1	1	1	1	1
87	87	1	1	1	1	1	1	1	1
88	88	1	1	1	1	1	1	1	1
89	89	1	1	1	1	1	1	1	1
90	90	1	1	1	1	1	1	1	1
91	91	1	1	1	1	1	1	1	1
92	92	1	1	1	1	1	1	1	1
93	93	1	1	1	1	1	1	1	1
94	94	1	1	1	1	1	1	1	1
95	95	1	1	1	1	1	1	1	1
96	96	1	1	1	1	1	1	1	1
97	97	1	1	1	1	1	1	1	1
98	98	1	1	1	1	1	1	1	1
99	99	1	1	1	1	1	1	1	1
100	100	1	1	1	1	1	1	1	1
101	101	1	1	1	1	1	1	1	1
102	102	1	1	1	1	1	1	1	1
103	103	1	1	1	1	1	1	1	1
104	104	1	1	1	1	1	1	1	1
105	105	1	1	1	1	1	1	1	1
106	106	1	1	1	1	1	1	1	1
107	107	1	1	1	1	1	1	1	1
108	108	1	1	1	1	1	1	1	1
109	109	1	1	1	1	1	1	1	1
110	110	1	1	1	1	1	1	1	1
111	111	1	1	1	1	1	1	1	1
112	112	1	1	1	1	1	1	1	1
113	113	1	1	1	1	1	1	1	1
114	114	1	1	1	1	1	1	1	1
115	115	1	1	1	1	1	1	1	1
116	116	1	1	1	1	1	1	1	1
117	117	1	1	1	1	1	1	1	1
118	118	1	1	1	1	1	1	1	1
119	119	1	1	1	1	1	1	1	1
120	120	1	1	1	1	1	1	1	1
121	121	1	1	1	1	1	1	1	1
122	122	1	1	1	1	1	1	1	1
123	123	1	1	1	1	1	1	1	1
124	124	1	1	1	1	1	1	1	1
125	125	1	1	1	1	1	1	1	1
126	126	1	1	1	1	1	1	1	1
127	127	1	1	1	1	1	1	1	1
128	128	1	1	1	1	1	1	1	1
129	129	1	1	1	1	1	1	1	1
130	130	1	1	1	1	1	1	1	1
131	131	1	1	1	1	1	1	1	1
132	132	1	1	1	1	1	1	1	1
133	133	1	1	1	1	1	1	1	1
134	134	1	1	1	1	1	1	1	1
135	135	1	1	1	1	1	1	1	1
136	136	1	1	1	1	1	1	1	1
137	137	1	1	1	1	1	1	1	1
138	138	1	1	1	1	1	1	1	1
139	139	1	1	1	1	1	1	1	1
140	140	1	1	1	1	1	1	1	1
141	141	1	1	1	1	1	1	1	1
142	142	1	1	1	1	1	1	1	1
143	143	1	1	1	1	1	1	1	1
144	144	1	1	1	1	1	1	1	1
145	145	1	1	1	1	1	1	1	1
146	146	1	1	1	1	1	1	1	1
147	147	1	1	1	1	1	1	1	1
148	148	1	1	1	1	1	1	1	1
149	149	1	1	1	1	1	1	1	1
150	150	1	1	1	1	1	1	1	1
151	151	1	1	1	1	1	1	1	1
152	152	1	1	1	1	1	1	1	1
153	153	1	1	1	1	1	1	1	1
154	154	1	1	1	1	1	1	1	1
155	155	1	1	1	1	1	1	1	1
156	156	1	1	1	1	1	1	1	1
157	157	1	1	1	1	1	1	1	1
158	158	1	1	1	1	1	1	1	1
159	159	1	1	1	1	1	1	1	1
160	160	1	1	1	1	1	1	1	1
161	161	1	1	1	1	1	1	1	1
162	162	1	1	1	1	1	1	1	1
163	163	1	1	1	1	1	1	1	1
164	164	1	1	1	1	1	1	1	1
165	165	1	1	1	1	1	1	1	1
166	166	1	1	1	1	1	1	1	1
167	167	1	1	1	1	1	1	1	1
168	168	1	1	1	1	1	1	1	1
169	169	1	1	1	1	1	1	1	1
170	170	1	1	1	1	1	1	1	1
171	171	1	1	1	1	1	1	1	1
172	172	1	1	1	1	1	1	1	1
173	173	1	1	1	1	1	1	1	1
174	174	1	1	1	1	1	1	1	1
175	175	1	1	1	1	1	1	1	1
176	176	1	1	1					

TABLE II

continued.

TABLE II

AGE PERIOD.	AREA OF SCAR.	ONE SCAR.				TWO SCARS.			
		FOVEATED.		UNFOVEATED.		FOVEATED.		UNFOVEATED.	
		Sparse.	Abundant.	Confluent.	Hæmorrhagic.	Sparse.	Abundant.	Confluent.	Hæmorrhagic.
65 and over	-.25 sq. in.	Cases, ...	...	I	...	Cases, ...	...	I	...
	-.25 - .5 "	Deaths, ...	...	I	...	Deaths, ...	...	I	...
	.5 - 1 "	Cases, ...	...	I	...	Deaths, ...	...	I	...
	1 and over ,	Cases, ...	...	I	...	Deaths, ...	...	I	...
		Cases, ...	...	I	...	Deaths, ...	...	I	...

continued.

THREE SCARS.				FOUR SCARS AND OVER.				TOTAL.	
FOVEATED.		UNFOVEATED.		FOVEATED.		UNFOVEATED.		Cases.	Deaths.
Abundant.		Sparse.		Sparse.		Sparse.		4	
Confluent.		Abundant.		Abundant		Abundant.		1	
Hæmorrhagic.		Confluent.		Confluent.		Confluent.		1	
		Hæmorrhagic.		Hæmorrhagic.		Hæmorrhagic.		1	2

TABLE III.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVIDERE.—UNVACCINATED AND “DOUBTFUL” CASES TREATED FROM 1ST JUNE, 1901, TO 31ST MAY, 1902; CLASSIFIED AS TO AGE AND CHARACTER OF ATTACK; WITH RESULTS.

Equal to 35.3 per cent.

TABLE *IV.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVIDERE.—TOTAL CASES OF SMALLPOX IN BOTH EPIDEMICS, 1900-1902, OCCURRING IN VACCINATED PERSONS, CLASSIFIED ACCORDING TO AGE, SEX, AND SEVERITY.

AGE.	Discrete, Confined.	Hemorrhagic.	Total.	Deaths.	Hemorrhagic per cent.	Males.		Females.		Total.		Mortality per cent.	
						C.	D.	C.	D.	C.	D.		
0-5, -	-	-	4	1	25.0	3	1	1	...	4	1	25.0	
5-10, -	-	-	33	1	3.0	34	...	11	...	23	...	34	
10-15, -	-	-	98	4	4.0	102	1	42	...	60	1	102	
15-20, -	-	-	136	9	6.6	145	...	87	...	58	...	145	
20-25, -	-	-	277	26	9.4	312	15	193	12	119	3	312	
25-35, -	-	-	671	95	14.1	781	46	435	25	346	21	781	
35-45, -	-	-	371	88	23.3	476	60	126	43	168	17	476	
45-55, -	-	-	113	34	30.0	155	33	213	83	20	72	13	
55-65, -	-	-	30	7	23.3	42	13	310	25	11	17	2	
65 and over, -	-	-	15	1	2	18	6	333	7	3	11	3	
Total, -	-	-	1,748	267	54	2,069	175	84	1,194	115	875	60	2,069
													175
													8.4

* As no sex tables were published last year, the whole epidemic is synopsised in this and the two succeeding tables.

TABLE V.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVIDERE.—TOTAL CASES OF SMALLPOX IN BOTH EPIDEMICS, 1900-1902, OCCURRING IN UNVACCINATED PERSONS, CLASSIFIED ACCORDING TO AGE, SEX, AND SEVERITY.

AGE.	Discrete.	Contiguous.	Hemorrhagic.	Total.	Deaths.	Mortality per cent.	Males.			Females.			Total.			Mortality per cent.	
							C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	
0-5,	-	-	-	44	30	1	75	42	56.0	36	19	39	23	75	42	56.0	
5-10,	-	-	-	8	8	...	16	4	25.0	5	1	11	3	16	4	25.0	
10-15,	-	-	-	7	8	2	17	5	29.4	2	...	15	5	17	5	29.4	
15-20,	-	-	-	3	3	...	6	2	33.3	4	1	2	1	6	2	33.3	
20-25,	-	-	-	1	6	...	7	4	57.1	7	4	...	...	7	4	57.1
25-35,	-	-	-	6	9	1	16	6	37.5	9	3	7	3	16	6	37.5	
35-45,	-	-	-	4	8	2	14	5	35.7	9	5	5	5	...	14	5	35.7
45-55,	-	-	-	3	4	...	7	6	85.7	6	5	1	1	7	6	85.7	
55-65,	-	-	-	
65 and over,	-	-	-	
Total,	-	-	-	76	76	6	158	74	46.8	78	38	80	36	158	74	46.8	

TABLE VI.—CITY OF GLASGOW SMALLPOX HOSPITAL, BELVIDERE.—TOTAL CASES OF SMALLPOX IN BOTH EPIDEMICS, 1900-1902, OCCURRING IN PERSONS OF DOUBTFUL VACCINATION, CLASSIFIED ACCORDING TO AGE, SEX, AND SEVERITY.

AGE.	Discrete, Confluent.	Hæmorrhagic Gang.	Total.	Mortality per cent.	Males.			Females.			Total.			Mortality per cent.	
					C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	
0-5,	-	-	4	1	...	5	...	2	...	3	...	5	...	...
5-10,	-	-	4	...	4	...	4	...	...	4	...	4	...	...
10-15,	-	-	2	...	2	1	50.0	1	1	1	...	2	1	50.0	
15-20,	-	-	2	1	...	3	1	33.3	2	1	1	...	3	1	33.3
20-25,	-	-	...	2	1	3	2	66.6	2	1	1	1	3	2	66.6
25-35,	-	-	5	11	1	17	12	70.6	14	11	3	1	17	12	70.6
35-45,	-	-	3	9	1	13	6	46.2	7	2	6	4	13	6	46.2
45-55,	-	-	3	3	3	9	5	55.5	7	4	2	1	9	5	55.5
55-65,	-	-	...	2	...	2	1	50.0	1	...	1	1	2	1	50.0
65 and over,	-	-	1	...	...	1	1	100.0	...	...	1	1	1	1	100.0
Total,	-	-	24	29	6	59	29	49.1	36	20	23	9	59	29	49.1

TABLE I.—CASES TREATED IN CITY OF GLASGOW FEVER HOSPITAL
DECEMBER, 1870, TIL

Year ending 30th April.	Typhus.		Relapsing Fever.		Enteric Fever.		Smallpox.		Scarlet Fever.		Measles.		Whooping Cough.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
1870-71	207	26	1,199	32	3	1	10	...	1	...	...	...	...	...
1871-72	504	55	1,702	36	83	13	...	...	12	1	6	...	...	...
1872-73	297	33	76	1	181	20	...	...	53	6	15	...	4	2
1873-74	228	33	...	...	275	26	...	...	313	36	45	1	...	...
1874-75	457	51	...	...	342	24	3	...	721	125	39	...	...	...
1875-76	530	58	...	...	527	66	...	...	22	...	3	...	...	...
1876-77	350	50	...	...	299	36	...	...	146	16	52	4	...	...
1877-78	275	37	...	...	287	44	...	...	127	21	105	10	10	2
1878-79	238	44	...	...	375	51	...	...	353	40	250	8	66	11
1879-80	239	34	...	...	407	55	...	...	536	64	115	3	98	11
1880-81	251	41	...	...	802	102	...	...	880	100	244	21	53	5
1881-82	227	33	...	...	391	57	...	...	634	54	279	14	54	5
1882-83	211	25	...	...	425	62	...	...	665	92	334	31	134	18
1883-84	345	31	...	...	338	46	...	...	1,069	123	344	24	183	28
Year ending 31st May.														
1884-85	111	14	...	...	541	76	...	...	1,163	156	721	65	237	59
1885-86	145	14	...	...	240	36	...	...	812	83	93	6	164	20
1886-87	87	17	...	...	204	32	...	...	1,266	156	504	42	177	35
1887-88	188	20	...	...	276	45	...	...	1,265	99	338	19	166	36
<i>Forward,</i>	4,890	616	2,977	69	5,996	792	13	...	10,038	1,172	3,487	248	1,346	24

* Up to 1885-86 (inclusive), "Other Diseases" includ

IX. B.

ALVIDERE, FROM THE OPENING OF THE HOSPITAL ON 25TH
ST MAY, 1902.

phtherla.	Plague.		Cholera.		Febricula.		Erysipelas.		Other Infectious Diseases.		Other Diseases.*		Nursing Mothers.	Total.		
	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.			
3	2	..	..	..	..	6	..	1	..	..	..	19	10	..	1,440	71
..	..	..	..	..	..	54	..	1	..	..	..	188	42	..	2,550	147
..	..	..	..	..	..	45	..	..	..	..	..	61	19	..	732	81
..	..	..	..	..	..	40	..	3	..	..	..	103	24	..	1,007	120
..	..	..	..	..	..	25	..	2	..	..	..	221	40	..	1,810	240
..	..	..	..	..	..	31	..	2	..	..	..	88	18	..	1,203	142
2	..	..	..	..	..	53	1	5	..	..	..	123	11	..	1,030	118
2	2	..	..	..	..	30	..	3	1	..	..	125	23	..	964	140
3	2	..	..	..	..	35	..	6	2	..	..	184	23	..	1,510	181
2	..	..	..	..	..	37	..	10	1	..	..	152	20	..	1,596	188
7	..	..	..	..	..	58	..	15	2	..	..	267	23	..	2,577	294
11	7	..	..	..	..	64	3	18	..	..	..	254	34	..	1,932	207
7	4	..	..	..	..	41	1	49	4	..	..	342	45	..	2,208	282
7	3	..	..	..	..	58	3	58	5	..	..	406	55	..	2,808	318
11	6	..	..	..	..	63	..	85	5	..	..	535	66	..	3,467	447
8	5	..	..	..	..	27	..	94	7	..	..	295	39	..	1,878	216
4	3	..	..	..	..	20	..	68	3	31	1	279	23	140	2,780	316
12	5	..	..	..	..	22	..	104	5	52	3	213	27	103	2,739	259
79	39	..	..	..	..	709	8	524	35	83	4	3,855	542	243	34,240	3,767

Other Infectious Diseases" and "Nursing Mothers."

TABLE

Year ending 31st May.	Typhus.		Relapsing Fever.		Enteric Fever.		Smallpox.		Scarlet Fever.		Measles.		Whooping Cough.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
<i>Forward,</i>	4,890	616	2,977	69	5,996	792	13	...	10,038	1,172	3,487	248	1,346	12
1888-89	81	12	...	...	293	41	...	...	1,113	82	893	88	327	13
1889-90	76	14	...	...	389	70	...	...	903	59	815	88	286	14
1890-91	112	12	...	...	388	59	...	...	1,868	111	514	53	292	15
1891-92	121	25	...	...	487	100	...	...	1,907	114	684	84	259	16
1892-93	37	6	...	...	293	52	...	...	2,550	172	1,098	97	263	17
1893-94	57	8	...	...	653	117	...	...	799	58	394	34	400	18
1894-95	46	6	...	...	356	69	...	...	1,089	57	819	59	204	19
1895-96	60	16	...	...	670	115	...	...	1,101	60	390	31	461	20
1896-97	13	5	...	...	545	106	...	...	811	46	1,442	164	348	21
1897-98	76	7	...	...	589	135	...	...	1,020	60	878	70	521	22
1898-99	24	7	...	...	1,002	175	...	...	1,420	80	861	74	247	23
1899-1900	22	6	...	...	827	149	...	...	1,937	105	1,211	102	222	24
1900-01	66	15	...	...	450	73	...	...	777	37	274	26	363	25
1901-02	19	5	...	...	338	67	...	...	865	29	617	44	116	26
Total, ...	5,700	760	2,977	69	13,276	2,120	13	...	28,198	2,242	14,377	1,262	5,655	1,0

Continued.

Phthisis.		Plague.		Cholera.		Febricula.		Erysipelas.		Other Infectious Diseases.		Other Diseases.		Nursing Mothers.		Total.	
	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
79	39	...	...	...	...	709	8	524	35	83	4	3,855	542	243	34,240	3,767
38	17	...	...	...	...	7	...	79	13	15	2	161	21	157	3,164	347
51	24	...	...	...	...	4	...	141	15	22	...	200	33	142	3,038	359
05	42	...	...	...	...	22	...	202	17	20	5	213	30	112	3,848	388
70	29	...	...	...	...	19	...	302	23	49	4	308	35	161	4,367	471
93	36	...	...	2	...	6	...	53	3	36	0	177	24	140	4,748	457
81	74	...	...	...	...	2	...	146	14	40	11	131	26	112	2,915	400
41	69	...	...	...	...	...	...	111	15	22	11	82	10	107	3,077	333
69	23	...	...	...	...	7	...	60	7	21	0	117	33	65	3,130	364
80	38	...	...	...	...	6	...	53	4	37	0	134	23	95	3,664	451
74	40	...	...	...	...	4	...	62	3	25	10	178	45	87	3,614	496
13	50	...	...	...	...	11	...	82	5	49	22	223	35	82	4,194	479
35	42	...	...	...	...	4	...	65	7	72	19	189	39	52	4,836	511
84	30	28	8	...	...	6	...	44	1	72	29	177	16	33	2,474	296
42	28	8	2	...	...	11	...	54	9	56	18	126	18	21	2,373	246
55	581	36	10	2	...	818	8	1,987	171	619	159	6,280	930	1,589	83,682	9,371	

TABLE II.—CASES TREATED IN CITY OF GLASGOW SMALLPOX HOSPITAL
BELVIDERE, FROM THE OPENING OF THE HOSPITAL, 6TH DECEMBER, 1877
TILL 31ST MAY, 1902.

Year ending 30th April.	Smallpox.		Scarlet Fever.		Measles* and German Measles.		Whooping- Cough.*		Febricula.		Chicken- pox.		Other Diseases.†		Nursing Mothers.‡		Total.
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
1878-79	13	...	...	...	...	...	...	...	...	...	3	...	4	...	...	20	...
1879-80	1	...	...	...	...	...	...	...	...	...	9	...	1	...	...	11	...
1880-81	11	3	...	...	...	...	...	...	...	...	11	...	6	...	...	28	...
1881-82	6	...	...	...	...	...	...	...	...	...	8	...	4	...	...	18	...
1882-83	12	1	1	...	...	...	...	...	...	...	6	...	2	1	...	21	...
1883-84	139	14	...	...	...	...	...	...	...	...	20	...	10	...	...	169	1
Year ending 31st May.																	1899
1884-85	66	3	1	...	...	...	...	...	...	...	19	...	9	...	...	95	...
1885-86	56	7	...	...	...	...	...	...	...	...	12	...	4	...	...	72	...
1886-87	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	10	...
1887-88	2	...	...	...	...	...	...	...	...	...	16	...	3	...	...	21	...
1888-89	2	...	...	...	...	1	...	...	...	...	15	...	5	1	3	26	...
1889-90	4	...	...	...	...	1	...	...	...	...	28	...	3	...	2	38	...
1890-91	1	...	...	...	...	4	...	1	1	...	19	...	2	1	4	31	...
1891-92	10	...	1	...	4	...	1	1	...	...	31	1	2	...	4	53	...
1892-93	434	30	1	...	1	...	...	...	2	...	18	...	18	1	2	476	...
1893-94	54	5	...	...	4	...	...	...	...	...	23	1	6	1	3	90	...
1894-95	209	17	...	...	3	...	...	...	...	...	31	1	6	2	2	251	...
1895-96	36	2	...	...	...	...	...	...	...	...	37	...	4	1	2	79	...
<i>Forward,</i>	<i>1,056</i>	<i>82</i>	<i>4</i>	<i>...</i>	<i>18</i>	<i>...</i>	<i>2</i>	<i>1</i>	<i>2</i>	<i>..</i>	<i>316</i>	<i>3</i>	<i>89</i>	<i>8</i>	<i>22</i>	<i>1,509</i>	<i>1</i>

* These patients were mostly suffering from chickenpox as well.

† Up to 1885-86 (inclusive), "Other Diseases" includes "Other Infectious Diseases" and "Nursing Mothers."

TABLE II.—Continued.

Year ending 1st May.	Smallpox.		Scarlet Fever.		Measles* and German Measles.		Whooping- Cough.†		Febricula.		Chicken- pox.		Other Diseases.		Nursing Mothers.		Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
forward,	1,056	82	4	...	18	...	2	1	2	...	316	3	89	8	22	1,509	94	
1896-97	2	1	...	...	1	...	...	...	...	...	29	1	3	1	5	40	3
1897-98	57	5	...	...	1	...	3	1	10†	...	35	2	11	2	5	128	10
1898-99	...	...	...	...	1	...	...	...	2†	1	16	...	5	...	...	24	1
1899-1900	69	6	...	...	...	...	...	...	...	...	18	...	9	...	...	96	6
1900-01	1,730	229	...	...	5	...	12	1	3	...	90	2	111	10	10	1,061	242
1901-02	488	44	...	...	2	...	8	5	...	...	66	1	29	4	10	603	54
TOTAL,	3,402	367	4	...	28	...	25	8	23	1	570	9	257	25	52	4,361	410	

* These patients were mostly suffering from chickenpox as well.

† These patients were Lascars suffering from a disease apparently having nosological relations with chickenpox and smallpox, of which an account was published in the *Lancet*, October 22, 1898.

APPENDIX C.

The following is a list of the donors of toys, books, money, &c., for the patients in hospital at Christmas and New Year, 1901-2:—

Lady M'Onie, Heath Bank, Pollokshields.
 Bailie Dick, City Chambers.
 Bailie Steele, City Chambers.
 Mrs. C. M'Kinnon, 3 Hamilton Drive, Hillhead.
 Mrs. Dobson, 23 Kelvinside Gardens.
 Mrs. Andrew Sharp, Jun., 9 Clarence Drive.
 J. Mackey, Esq., 725 London Road.
 A. T. Blair, Esq., 23 Moray Place, Regent Park.
 Mrs. W. L. Hatrick, 9 Windsor Quadrant.
 Mrs. Tulloch, 52 Montgomerie Drive.
 Mrs. A. S. Brown, 18 Royal Terrace.
 Mrs. Findlay, 5 Bute Gardens.
 Mrs. Dallachy, Greenhead Terrace.
 Mrs. M'Leod, 4 Park Circus Place.
 Misses M'Ewan, 13 Huntly Gardens.
 Misses Bessie and Nellie Morrison, 191 Meadowpark Street.
 Mrs. E. Thom, 9 Woodside Terrace.
 Matthew Gilmour, Esq., Fernbank, Cambuslang.
 William Manson, Esq., Ivy Bank, Tollcross.
 Mrs. Caldwell, Newlyn, Dennistoun.
 Miss E. Gillespie, Westwood, Castle-Douglas.
 Mrs. Ure, Cairndhu, Helensburgh.
 Mrs. MacBrayne, 11 Park Circus Place.
 Messrs. Thomas Flint & Co., 397 Sauchiehall Street.
 Miss Mary M. Farquhar, 5 Athole Gardens.
 Mrs. Snodgrass, Ashbourne, Winton Drive.
 Miss Innes, 8 Bruce Road.
 Mrs. M'Ewan, 92 Hyndland Road.
 Mrs. Maxwell, 275 London Road.
 — Neil, 316 St. Vincent Street.
 Dugald M'Kechnie, Esq., 26 Candleriggs.
 Messrs. R. Sloan & Son, 217 Argyle Street.
 Miss Watson, Park Circus.
 Miss Hamilton, 11 Prince's Square.
 Mrs. Watson, Jane Street.
 Mrs. Miller, The Manse, Shandon.
 Miss Waddell, Inveresk, Kilmalcolm.
 Victoria Place Baptist Church Sunday School.
 Claremont Street U.F. Church, per the Rev. Dr. M'Ewen.
 Sydney Place U.F. Church, per J. Inglis, Esq.
 Wellpark U.F. Church, per the Rev. Mr. Mair.
 "A Little Boy," Bothwell.
 The Hon. Misses Burns, Wemyss House, Wemyss Bay—a Basket of Flowers weekly during season.
 Mrs. Stephen, Kelly, Wemyss Bay—a Box of Flowers weekly during season.
 Proprietors of the *Glasgow Weekly Herald*—6 copies of the *Weekly Herald* every week.

In addition there were several anonymous donors.



TABLE(S)
RUNNING
GUTTER

